CLAIMS

1. A light emitting diode comprising a light emitting diode element mounted on a base, said light emitting diode element being protected at its surface side by a resin seal member, the light emitting diode being characterized in that a fluorescent material containing layer is arranged on a back side of said light emitting diode element.

2. The light emitting diode according to claim 1, characterized in that said light emitting diode element is a light emitting diode for blue luminescence, made of gallium nitride type compound semiconductor or SiC type compound semiconductor.

3. A light emitting diode comprising two or more light emitting diode elements mounted on a base, said light emitting diode elements being protected at their surface side by a resin seal member, the light emitting diode being characterized in that: at least one of said two or more light emitting diode elements is a light emitting diode element for blue luminescence, made of gallium nitride type compound semiconductor or SiC type compound semiconductor; and a fluorescent material containing layer is arranged on a back side of said light emitting diode element for blue luminescence.

4. The light emitting diode according to claim 1 ~~or 3~~, characterized in that: said fluorescent material containing

layer is composed of a fluorescent material dispersed into an adhesive; and a back of said light emitting diode element is firmly fixed to said base by the adhesive action of said fluorescent material containing layer.

5. The light emitting diode according to claim 1 ~~or 3~~, characterized in that: said fluorescent material containing layer is formed with a fluorescent material and an adhesive separate from each other; and a fluorescent material containing resin layer and an adhesive layer are formed in layers on a top surface of said base.

6. The light emitting diode according to claim 4 ~~or 5~~, characterized in that said fluorescent material containing layer is formed on the top surface of said base by printing means.

7. The light emitting diode according to claim 1 ~~or 3~~, characterized in that said fluorescent material containing layer is a fluorescent material containing resin sheet pasted on a top surface of said base.

8. The light emitting diode according to ~~any of claims 4, 5, and 7~~ claim 4, characterized in that said fluorescent material is an yttrium compound.

9. The light emitting diode according to claim 1 ~~or 3~~, characterized in that a periphery of said fluorescent material containing layer is surrounded by a dam provided on a top surface of said base.

10. The light emitting diode according to claim 1 ~~or 3~~,

characterized in that a reflecting surface is arranged on a bottom side of said fluorescent material containing layer or a top surface of said base.

11. The light emitting diode according to claim 1 ~~or 3~~, characterized in that an upward reflecting surface tilting outward is arranged around said light emitting diode elements.

12. The light emitting diode according to claim 1 ~~or 3~~, characterized in that a lens portion of convex shape is formed on a top side of said resin seal member.

13. The light emitting diode according to claim 1 ~~or 3~~, characterized in that: said resin seal member is formed flat at a top side; and a fluorescent material containing layer is formed on the top side.

14. The light emitting diode according to claim 1 ~~or 3~~, characterized in that said base is a glass epoxy substrate, a solid-molded substrate of liquid crystal polymer, or a sheet metal substrate.

15. The light emitting diode according to claim 1 ~~or 3~~, characterized in that: said light emitting diode element is connected to a pair of electrodes arranged on said base; and said electrodes are surface-mounted directly to printed wires on a motherboard.

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